What is claimed is:

1. A method for applying a coating to an optical surface of an optical device, comprising the steps of:

   a. placing a coating solution in a cliche of a cliche plate;

   b. transferring the coating solution from the cliche to a transfer pad, wherein the transfer pad has a deformable body retaining coating solution; and

   c. pressing the transfer pad to the optical surface so as to transfer the coating solution from the deformable body of the transfer pad to the optical surface.

2. The method of Claim 1, further comprising the step of:

   d. irradiating the coating solution associated with the optical surface at a wavelength of microwave so as to form a coating layer on the optical surface.

3. The method of Claim 1, wherein the placing step comprises:

   i. providing a reservoir containing the coating solution; and

   ii. filling the cliche of the cliche plate with the coating solution from the reservoir.

4. The method of Claim 3, wherein the reservoir has a body with a first end and a second end, an outer surface and a longitudinal axis, and defining an axially extending bore, a cap closing the extending bore at the first end, and a wiper blade surrounding the extending bore at the second end, and the filling step further comprises the steps of:

iii. positioning the reservoir with its second end against the surface of the cliche plate having the cliche such that the cliche plate cooperates with the wiper blade to close the extending bore at the second end; and

iv. moving the cliche plate relative to the reservoir in a direction substantially perpendicular to the longitudinal axis so that the wiper blade crosses the cliche to leave some of the coating solution in the cliche.

5. The method of Claim 4, wherein the reservoir further has an inlet through the cap and in fluid communication with the bore and a supply of the coating solution, further comprising the step of providing the coating solution to the bore of the reservoir from the supply of the coating solution through the inlet.

6. The method of Claim 1, wherein the transferring step comprises:

i. placing the transfer pad in a first position;

ii. positioning the cliche plate in a second position, wherein the first position and the second position are aligned along a first operating axis;

iii. bringing the transfer pad and the cliche plate together in a relative movement so that the transfer pad contacts the coating solution in the cliche;

iv. pressing the transfer pad against the cliche plate so that some coating solution is transferred from the cliche to form a layer of the coating solution on the transfer pad;

v. separating the transfer pad and the cliche plate from each other in a relative movement so that the transfer pad is substantially back to the first position and the cliche plate is substantially back to or stays at the second position; and

vi. retracing the cliche plate to a retracted position from the second position, wherein the second position and the retracted position are aligned along a second operating axis, and the first operating axis and the second operating axis are substantially perpendicular to each other.

7. The method of Claim 6, further comprising the steps of:

vii. placing a coating solution in the cliche of the cliche plate in the retraced position; and

viii. positioning the cliche plate having the coating solution in the cliche in the second position ready for transferring the coating solution to the transfer pad.

8. The method of Claim 1, wherein the pressing step comprises:

i. placing the transfer pad in a first position;

ii. positioning the optical device in a second position, wherein the first position and the second position are aligned along a first operating axis;

iii. bring the transfer pad and the optical device together in a relative movement so that the transfer pad contacts the optical surface of the optical device;

iv. pressing the transfer pad against the optical surface so that some coating solution is transferred from the transfer pad to form a layer of the coating solution on the optical surface of the optical device; and

v. separating the transfer pad and the optical device from each other in a relative movement so that the transfer pad is substantially back to the first position.

9. The method of Claim 8, further comprising the step of:

vi. moving the optical device to a third position for irradiating.

10. The method of Claim 2, wherein the radiation is generated by a microwave energy source.

11. The method of Claim 10, wherein the microwave energy source is a microwave oven.

12. The method of Claim 10, wherein the optical device is an optical lens.

13. The method of Claim 12, further comprising the step of curing the smooth coating layer to form a coating on the optical surface by radiation outside the wavelength range of microwave.

14. The method of Claim 13, wherein the radiation is generated by an infra-red light source.

15. The method of Claim 13, wherein the radiation is generated by an ultra-violet light source.

16. The method of Claim 10, wherein the optical device comprises a front mold having a facing inside surface, and the optical surface is the facing inside surface of the front mold.

17. The method of Claim 16, wherein the optical device further comprises a back mold having a facing inside surface, and the optical surface is the facing inside surface of the back mold.

18. The method of Claim 17, further comprising the steps of:

e. positioning the front mold and the back mold whose facing inside surfaces are a negative image of the surfaces of an optical lens to be formed at a proper distance and rotational orientation to each other, both the front mold and back mold having an edge;

f. closing the edges of the front mold and back mold with a closure member to define a molding cavity;

g. injecting a fluid lens-forming material into the molding cavity; and

h. curing the fluid lens-forming material by radiation so that the fluid lens-forming material is hardened to form the optical lens and each of the coating layers on the inside surfaces of the front mold and back mold is transferred to and hardened to be bond on a corresponding surface of the optical lens.

19. The method of Claim 18, wherein the radiation is generated by an infra-red light source.

20. The method of Claim 18, wherein the radiation is generated by an ultra-violet light source.

21. The method of Claim 1, prior to the pressing step, further comprising the steps of:

i. placing a screen over the optical surface; and

ii. applying coating solution to the screen.

22. The method of Claim 21, wherein the pressing step further comprises the step of pressing the transfer pad against the screen so as to transfer the coating solution from the transfer pad to the screen and to the optical surface.

23. The method of Claim 22, wherein the screen comprises:

a. a frame defining an opening; and

b. a film covering the opening,

wherein at least part of the film has a plurality of holes.

24. The method of Claim 23, wherein the film comprises a partially coated fibre.

25. The method of Claim 22, wherein the pressing step further comprises the steps of:

i. pressing the transfer pad against the screen so that the film curvingly fits to the optical surface; and

ii. causing the coating solution from the transfer pad to reach the optical surface through the plurality of holes.

26. A method for applying a coating to an optical surface of an optical device, comprising the steps of:

a. transferring a coating solution to a transfer pad; and

b. pressing the transfer pad to the optical surface so as to transfer the coating solution from the transfer pad to the optical surface.

27. The method of Claim 26, further comprising the step of placing a coating solution in a cliche of a cliche plate, and the transferring step comprising the step of transferring the coating solution from the cliche to the transfer pad.

28. The method of Claim 27, wherein the placing step comprises:

i. providing a reservoir containing the coating solution; and

ii. filling the cliche of the cliche plate with the coating solution from the reservoir.

29. The method of Claim 28, wherein the reservoir has a body with a first end and a second end, an outer surface and a longitudinal axis, and defining an axially extending bore, a cap closing the extending bore at the first end, and a wiper blade surrounding the extending bore at the second end, and the filling step further comprises the steps of:

iii. positioning the reservoir with its second end against the surface of the cliche plate having the cliche such that the cliche plate cooperates with the wiper blade to close the extending bore at the second end; and

iv. moving the cliche plate relative to the reservoir in a direction substantially perpendicular to the longitudinal axis so that the wiper blade crosses the cliche to leave some of the coating solution in the cliche.

30. The method of Claim 29, wherein the reservoir further has an inlet through the cap and in fluid communication with the bore and a supply of the coating

solution, further comprising the step of providing the coating solution to the bore of the reservoir from the supply of the coating solution through the inlet.

31. The method of Claim 26, wherein the transferring step comprises:

i. placing the transfer pad in a first position;

ii. positioning the cliche plate in a second position, wherein the first position and the second position are aligned along a first operating axis;

iii. bringing the transfer pad and the cliche plate together in a relative movement so that the transfer pad contacts the coating solution in the cliche;

iv. pressing the transfer pad against the cliche plate so that some coating solution is transferred from the cliche to form a layer of the coating solution on the transfer pad;

v. separating the transfer pad and the cliche plate from each other in a relative movement so that the transfer pad is substantially back to the first position and the cliche plate is substantially back to or stays at the second position; and

vi. retracting the cliche plate to a retracted position from the second position, wherein the second position and the retracted position are aligned along a second operating axis, and the first operating axis and the second operating axis are substantially perpendicular to each other.

32. The method of Claim 31, further comprising:

vii. placing a coating solution in the cliche of the cliche plate in the retracted position; and

viii. positioning the cliche plate having the coating solution in the cliche in the second position ready for transferring the coating solution to a transfer pad.

33. The method of Claim 26, wherein the pressing step comprises:

i. placing the transfer pad in a first position;

ii. positioning the optical device in a second position, wherein the first position and the second position are aligned along a first operating axis;

iii. bringing the transfer pad and the optical device together in a relative movement so that the transfer pad contacts the optical surface of the optical device;

iv. pressing the transfer pad against the optical surface so that some coating solution is transferred from the transfer pad to form a layer of the coating solution on the optical surface of the optical device; and

v. separating the transfer pad and the optical device from each other in a relative movement so that the transfer pad is substantially back to the first position and the optical device is substantially back to or stays at the second position.

34. The method of Claim 33, further comprising:

vi. moving the optical device to a third position for irradiating treatment.

35. The method of Claim 26, wherein the optical device comprises an optical lens, further comprising the steps of:

a. irradiating the coating solution associated with the optical surface at a wavelength of microwave so as to form a coating layer on the optical surface; and

b. curing the coating layer to form a coating on the optical surface by radiation outside the wavelength range of microwave.

36. The method of Claim 35, wherein the microwave radiation is generated by a microwave energy source.

37. The method of Claim 35, wherein the radiation outside the wavelength range of microwave is generated by at least one of an infra-red light and an ultra-violet light.

38. The method of Claim 26, wherein the optical device comprises a front mold having a facing inside surface, and the optical surface is the facing inside surface of the front mold.

39. The method of Claim 38, wherein the optical device further comprises a back mold having a facing inside surface, and the optical surface is the facing inside surface of the back mold.

40. The method of Claim 39, further comprising the steps of:

a. irradiating the coating solution associated with the facing inside surface for each of the front mold and back mold at a wavelength of microwave so as to form a coating layer on each facing inside surface;

b. positioning the front mold and the back mold whose facing inside surfaces are a negative image of the surfaces of an optical lens to be formed at a proper distance and rotational orientation relative to each other, both the front mold and back mold having an edge;

c. closing the edges of the front mold and back mold with a closure member to define a molding cavity;

d. injecting a fluid lens-forming material into the molding cavity; and

e. curing the fluid lens-forming material by radiation outside the wavelength range of microwave so that the fluid lens-forming material is hardened to form the optical lens and each of the coating layers on the inside surfaces of the front mold and back mold is transferred to and hardened to be bond on a corresponding surface of the optical lens.

41. The method of Claim 40, wherein the microwave radiation is generated by a microwave energy source.

42. The method of Claim 40, wherein the radiation outside the wavelength range of microwave is generated by at least one of an infra-red light and an ultra-violet light.

43. An apparatus for applying a coating to an optical surface of an optical device, comprising:

a. means for containing a coating solution; and

b. means for transferring the coating solution to the optical surface, wherein the transferring means is pressed against the optical surface so as to transfer the coating solution from the transferring means to the optical surface.

44. The apparatus of Claim 43, wherein the containing means comprises a cliche plate having a first surface and an opposite second surface, and at least one cliche located at the first surface to contain the coating solution.

45. The apparatus of Claim 44, further comprising:

i. means for providing the coating solution; and

ii. means for filling the cliche of the cliche plate with the coating solution from the providing means.

46. The apparatus of Claim 45, wherein the providing means includes a reservoir having a body with a first end and a second end, an outer surface and a longitudinal axis, and defining an axially extending bore, a cap closing the extending bore at the first end, and a wiper blade surrounding the extending bore at the second end,

wherein when the reservoir is positioned with its second end against the surface of the cliche plate having the cliche, the cliche plate cooperates with the wiper blade to close the extending bore at the second end, and

wherein the cliche plate can be moved relative to the reservoir in a direction substantially perpendicular to the longitudinal axis so that the wiper blade crosses the cliche to leave some of the coating solution in the cliche.

47. The apparatus of Claim 43, further comprising means for irradiating the coating solution associated with the optical surface at a wavelength of microwave so as to form a coating layer on the optical surface.

48. The apparatus of Claim 47, wherein the optical device comprises an optical lens, further comprising means for curing the coating layer to form a coating on the optical surface by radiation outside the wavelength range of microwave.

49. The apparatus of Claim 48, wherein the microwave radiation is generated by a microwave energy source.

50. The apparatus of Claim 48, wherein the radiation outside the wavelength range of microwave is generated by at least one of an infra-red light and an ultra-violet light.

51. The apparatus of Claim 47, wherein the optical device comprises a front mold having a facing inside surface, and the optical surface is the facing inside surface of the front mold.

52. The apparatus of Claim 51, wherein the optical device further comprises a back mold having a facing inside surface, and the optical surface is the facing inside surface of the back mold.

53. The apparatus of Claim 52, further comprising:

    a. means for positioning the front mold and the back mold whose facing inside surfaces are a negative image of the surfaces of an optical lens to be formed at a proper distance and rotational orientation to each other, both the front mold and back mold having an edge;

    b. means for closing the edges of the front mold and back mold to define a molding cavity;

    c. means for injecting a fluid lens-forming material into the molding cavity; and

    d. means for curing the fluid lens-forming material by radiation outside the wavelength range of microwave so that the fluid lens-forming material is hardened to form the optical lens and each of the coating layers on the inside surfaces of the front mold and back mold is transferred to and hardened to be bond on a corresponding surface of the optical lens.

54. The apparatus of Claim 53, wherein the curing means comprises at least one of an infra-red light and an ultra-violet light.

55. A method for applying a coating to an optical device having a first optical surface and a second optical surface, comprising the steps of:

a. transferring a coating solution to a first transfer pad and a second transfer pad; and

b. pressing the first transfer pad to the first optical surface, and the second transfer pad to the second optical surface, respectively, so as to transfer the coating solution from the first transfer pad and the second transfer pad to the first optical surface and the second optical surface, respectively.

56. The method of Claim 55, further comprising the step of placing a coating solution in a cliche of a first cliche plate, and the transferring step comprising the step of transferring the coating solution from the cliche of the first cliche plate to the first transfer pad.

57. The method of Claim 56, further comprising the step of placing a coating solution in a cliche of a second cliche plate, and the transferring step comprising the step of transferring the coating solution from the cliche of the second cliche plate to the second transfer pad.

58. The method of Claim 57, wherein the placing step comprises:

i. providing a reservoir containing the coating solution; and

ii. filling the cliche of each of the first cliche plate and the second cliche plate with the coating solution from the reservoir.

59. The method of Claim 55, wherein the transferring step comprises:

i. placing the first transfer pad in a first position;

ii. positioning the first cliche plate in a second position, wherein the first position and the second position are aligned along a first operating axis;

iii. bringing the first transfer pad and the first cliche plate together in a relative movement so that the first transfer pad contacts the coating solution in the cliche of the first cliche plate;

iv. pressing the first transfer pad against the first cliche plate so that some coating solution is transferred from the cliche to form a layer of the coating solution on the first transfer pad; and

v. separating the first transfer pad and the first cliche plate from each other.

60. The method of Claim 59, wherein the transferring step further comprises:

i. placing the second transfer pad in a third position;

ii. positioning the second cliche plate in a fourth position, wherein the third position and the fourth position are aligned along the first operating axis;

iii. bring the second transfer pad and the second cliche plate together in a relative movement so that the second transfer pad contacts the coating solution in the cliche of the second cliche plate;

iv. pressing the second transfer pad against the second cliche plate so that some coating solution is transferred from the cliche of the second cliche plate to form a layer of the coating solution on the second transfer pad; and

v. separating the second transfer pad and the second cliche plate from each other.

61. The method of Claim 55, wherein the pressing step comprises:

i. placing the first transfer pad in a first position and the second transfer pad in a second position apart from each other, wherein the first position and the second position are aligned along a first operating axis;

ii. positioning the optical device therebetween the first transfer pad and the second transfer pad;

iii. moving the first transfer pad and the second transfer pad toward each other so that the first transfer pad contacts the first optical surface of the optical device and the second transfer pad contacts the second optical surface of the optical device, respectively; and

iv. pressing the first transfer pad to the first optical surface, and the second transfer pad to the second optical surface, respectively, so as to transfer some coating solution from the first transfer pad and the second transfer pad to the first optical surface and the second optical surface, respectively.

62. The method of Claim 55, further comprising the steps of:

a. irradiating the coating solution associated with each optical surface at a wavelength of microwave so as to form a coating layer on each optical surface; and

b. curing the coating layer on each optical surface to form a coating on each optical surface by radiation outside the wavelength range of microwave.

63. The method of Claim 62, wherein the microwave radiation is generated by a microwave energy source.

64. The method of Claim 62, wherein the radiation outside the wavelength range of microwave is generated by at least one of an infra-red light and an ultra-violet light.

65. A method for applying a coating to an optical surface of an optical lens, comprising the steps of:

a. placing a coating solution in a cliche of a cliche plate;

b. transferring the coating solution from the cliche to a transfer pad;

c. pressing the transfer pad to the optical surface so as to transfer the coating solution from the transfer pad to the optical surface;

d. irradiating the coating solution associated with the optical surface at a wavelength of microwave so as to form a coating layer on the optical surface; and

e. curing the coating layer to form a coating on the optical surface by radiation outside the wavelength range of microwave.

66. The method of Claim 65, prior to the pressing step, further comprising the steps of:

i. placing a screen over the optical surface; and

ii. applying coating solution to the screen.

67. The method of Claim 66, wherein the pressing step further comprises the step of pressing the transfer pad against the screen so as to transfer the coating solution from the transfer pad to the screen and to the optical surface.

68. A method for applying a coating to at least one optical surface of an optical lens, comprising the steps of:

a. placing a coating solution in a cliche of a cliche plate;

b. transferring the coating solution from the cliche to a transfer pad;

c. providing a front mold and a back mold each having a facing inside surface;

d. pressing the transfer pad to each of the facing inside surfaces of the front mold and back mold so as to transfer the coating solution from the transfer pad to each of the facing inside surfaces, respectively;

e. irradiating the coating solution associated with each of the facing inside surfaces at a wavelength of microwave so as to form a coating layer on each of the facing inside surfaces;

f. positioning the front mold and the back mold whose facing inside surfaces are a negative image of the surfaces of an optical lens to be formed at a proper distance and rotational orientation relative to each other, both the front mold and back mold having an edge;

g. closing the edges of the front mold and back mold with a closure member to define a molding cavity;

h. injecting a fluid lens-forming material into the molding cavity; and

i. curing the fluid lens-forming material by radiation outside the wavelength range of microwave so that the fluid lens-forming material is hardened to form the optical lens and each of the coating layers on the inside surfaces of the front mold and back mold is transferred to and hardened to be bond on a corresponding surface of the optical lens.

69. A method for applying a coating to at least one optical surface, comprising the steps of:

a. transferring a coating solution to the optical surface; and

b. irradiating the coating solution at a wavelength of microwave so as to form a coating layer on the optical surface.

70. The method of Claim 69, further comprising the step of curing the coating layer to form a coating on the optical surface by radiation at a wavelength outside the wavelength range of microwave.

71. The method of Claim 69, wherein the microwave radiation is generated from a microwave energy source.

72. The method of Claim 70, wherein the radiation at a wavelength outside the wavelength range of microwave is generated by at least one of an ultra-violet light and an infra-red light.

73. An apparatus for applying a coating to at least one optical surface, comprising:

a. means for transferring a coating solution to the optical surface; and

b. means for irradiating radiation at a wavelength of microwave so as to form a coating layer on the optical surface.

74. The apparatus of Claim 73, further comprising means for curing the coating layer to form a coating on the optical surface by radiation at a wavelength outside the wavelength range of microwave.

75. The apparatus of Claim 73, wherein the irradiating means comprises a microwave energy source.

76. The apparatus of Claim 74, wherein the curing means comrpises at least one of an ultra-violet light and an infra-red light.

77. A method for applying a coating to at least one optical surface, comprising the steps of:

a. placing a screen over the optical surface;

b. applying some coating solution to the screen;

c. transferring some coating solution to a transfer pad;

d. pressing the transfer pad against the screen so as to transfer the coating solution from the transfer pad to the screen and to the optical surface; and

e. irradiating the coating solution so as to form a coating layer on the optical surface.

78. The method of Claim 77, wherein the screen comprises:

a. a frame defining an opening; and

b. a film covering the opening,

wherein at least part of the film has a plurality of holes.

79. The method of Claim 78, wherein the film comprises a partially coated fibre.